

Title (en)  
HIGH MELT STRENGTH POLYMERS AND METHOD OF MAKING SAME

Title (de)  
POLYMERE MIT HOHER SCHMELZEFESTIGKEIT UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)  
POLYMERES PRESENTANT UNE RESISTANCE A L'ETAT DE FUSION ELEVEE ET PROCEDE DE PRODUCTION DE TELS POLYMERES

Publication  
**EP 1412398 B1 20190424 (EN)**

Application  
**EP 02728477 A 20020315**

Priority  
• US 0207919 W 20020315  
• US 27671901 P 20010316

Abstract (en)  
[origin: WO02074817A2] A polymerization process comprises contacting one or more olefinic comonomers in the presence of at least a high molecular weight catalyst and at least a low molecular weight catalyst in a single reactor; and effectuating the polymerization of the olefinic comonomers in the reactor to obtain an olefin polymer. Preferably, both catalysts have the ability to incorporate a substantially similar amount of comonomers in the olefin polymer. The polymers produced by the process may have a relatively higher level of long chain branching while maintaining a relatively narrow molecular weight distribution, i.e., MWD less than about 6. These interpolymers may exhibit processability similar to or better than LDPE but have physical properties similar to metallocene catalyzed polymers.

IPC 8 full level  
**C08F 10/00** (2006.01); **C08F 2/00** (2006.01); **C08F 4/02** (2006.01); **C08F 4/64** (2006.01); **C08F 4/646** (2006.01); **C08F 4/659** (2006.01); **C08F 4/6592** (2006.01); **C08F 210/16** (2006.01); **C08F 290/04** (2006.01); **C08L 23/04** (2006.01); **C08L 23/06** (2006.01); **C08L 23/08** (2006.01); **C08L 23/16** (2006.01)

CPC (source: EP KR US)  
**C08F 10/00** (2013.01 - EP KR US); **C08F 210/16** (2013.01 - EP US); **C08L 23/04** (2013.01 - EP US); **C08L 23/06** (2013.01 - EP US); **C08L 23/0815** (2013.01 - EP US); **C08F 4/65908** (2013.01 - EP US); **C08F 4/65912** (2013.01 - EP US); **C08F 4/6592** (2013.01 - EP US); **C08F 4/65925** (2013.01 - EP US); **C08F 4/65927** (2013.01 - EP US); **C08L 2205/02** (2013.01 - EP US); **C08L 2205/025** (2013.01 - EP US); **C08L 2207/07** (2013.01 - EP US); **C08L 2314/02** (2013.01 - EP US); **C08L 2314/06** (2013.01 - EP US); **Y02P 20/52** (2015.11 - EP US); **Y10S 526/943** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 02074817 A2 20020926; WO 02074817 A3 20030515**; AR 033002 A1 20031203; AR 033003 A1 20031203; AU 2002258526 B2 20061102; AU 2007200466 A1 20070222; AU 2007200466 B2 20091105; AU 2007203338 A1 20070809; AU 2007203338 B2 20091217; BR 0208485 A 20040309; BR 0208486 A 20040309; CA 2441028 A1 20020926; CA 2441028 C 20101207; CA 2441262 A1 20020926; CA 2441262 C 20130212; CA 2797698 A1 20020926; CA 2797698 C 20141230; CN 100519588 C 20090729; CN 101143908 A 20080319; CN 101143908 B 20111214; CN 1255439 C 20060510; CN 1309744 C 20070411; CN 1527847 A 20040908; CN 1538977 A 20041020; CN 1827652 A 20060906; CZ 20032816 A3 20041110; CZ 20032817 A3 20041110; EP 1377613 A2 20040107; EP 1377613 B1 20190619; EP 1412398 A2 20040428; EP 1412398 B1 20190424; ES 2734429 T3 20191205; ES 2742501 T3 20200214; JP 2004527612 A 20040909; JP 2004536895 A 20041209; JP 2008179825 A 20080807; JP 2008231433 A 20081002; JP 2012007176 A 20120112; JP 4249984 B2 20090408; JP 5323150 B2 20131023; KR 100880097 B1 20090123; KR 100898436 B1 20090521; KR 100900605 B1 20090602; KR 100917540 B1 20090916; KR 20030083737 A 20031030; KR 20030083738 A 20031030; KR 20080032657 A 20080415; KR 20080032658 A 20080415; MX PA03008321 A 20031211; MX PA03008322 A 20031211; MY 131000 A 20070731; MY 137183 A 20090130; NO 20034078 D0 20030915; NO 20034078 L 20031117; NO 20034079 D0 20030915; NO 20034079 L 20031117; PL 364603 A1 20041213; PL 368551 A1 20050404; US 2003065097 A1 20030403; US 2003088037 A1 20030508; US 2005020778 A1 20050127; US 2005065286 A1 20050324; US 2005187350 A1 20050825; US 2005187351 A1 20050825; US 6875816 B2 20050405; US 6924342 B2 20050802; US 7148305 B2 20061212; US 7271221 B2 20070918; US 7300983 B2 20071127; US 7999039 B2 20110816; US RE42276 E 20110405; US RE43004 E 20111206; WO 02074816 A2 20020926; WO 02074816 A3 20040219

DOCDB simple family (application)  
**US 0208121 W 20020315**; AR P020100935 A 20020315; AR P020100936 A 20020315; AU 2002258526 A 20020315; AU 2007200466 A 20070202; AU 2007203338 A 20070719; BR 0208485 A 20020315; BR 0208486 A 20020315; CA 2441028 A 20020315; CA 2441262 A 20020315; CA 2797698 A 20020315; CN 02806696 A 20020315; CN 02806702 A 20020315; CN 200610073045 A 20020315; CN 200710007084 A 20020315; CZ 20032816 A 20020315; CZ 20032817 A 20020315; EP 02726644 A 20020315; EP 02728477 A 20020315; ES 02726644 T 20020315; ES 02728477 T 20020315; JP 2002573822 A 20020315; JP 2002573823 A 20020315; JP 2008056619 A 20080306; JP 2008110304 A 20080421; JP 2011184218 A 20110826; KR 20037012067 A 20020315; KR 20037012069 A 20030916; KR 20087007772 A 20080331; KR 20087007775 A 20080331; MX PA03008321 A 20020315; MX PA03008322 A 20020315; MY PI20020940 A 20020314; MY PI20020945 A 20020314; NO 20034078 A 20030915; NO 20034079 A 20030915; PL 36460302 A 20020315; PL 36855102 A 20020315; US 0207919 W 20020315; US 10055702 A 20020315; US 10068702 A 20020315; US 60490509 A 20091023; US 60494009 A 20091023; US 8539005 A 20050321; US 8579305 A 20050321; US 91890604 A 20040816; US 92048504 A 20040817